

Form PTO-1449 (REV. 8-83) INFORMATION DISCLOSURE CITATION (Use several sheets if necessary)	U.S. DEPARTMENT OF COMMERCE PATENT AND TRADEMARK OFFICE		ATTY. DOCKET NO. 74451.P024XD	SERIAL NO. 09/499,255
	APPLICANT Zandi et al.		FILING DATE 2/7/00	GROUP 2621

U.S. PATENT DOCUMENTS

[illegible]

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FOREIGN PATENT DOCUMENTS

[illegible]

OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)

pt	7	Antonini, et al., "Image Coding using Wavelet Transform", IEEE Transactions on Image Processing, Vol 1, No. 2, April 1992, pp. 205-220.
pt	8	Komatsu, et al., "Reversible Subband Coding of Images, pp. 429-436 (Japanese).
pt	9	Lanndon, Jr., Glen G., "Sunset: A Hardware-Oriented Algorithm for Lossless Compression of Gray Scale Images", SPIE Vol. 1444, Image Capture, Formatting, and Display, 1991, p. 272-282
pt	10	Howard et al., "Fast and Efficient Lossless Image Compression", IEEE, 1993, pp. 351-360.

EXAMINER <i>Chia Tran</i>	DATE CONSIDERED <i>8/2/04</i>
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*EXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

Form PTO-1449 (REV. 8-83)	U.S. DEPARTMENT OF COMMERCE PATENT AND TRADEMARK OFFICE	ATTY. DOCKET NO. 74451.P024XD	SERIAL NO. 09/499,255
INFORMATION DISCLOSURE CITATION		APPLICANT Zandi, et al.	
(Use several sheets if necessary)		FILING DATE 2/7/00	GROUP 2621



U.S. PATENT DOCUMENTS

EXAMINER INITIAL	DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE
P	13 5241395	8-31-93	Chen			
P	14 5381145	1-10-95	Allen et al.			
P	15 4894713	1-16-90	Delogne et al.			
P	16 4922544	5-1-90	Stansfield et al.			
P	17 4999705	3-12-91	Puri			
P	18 5109451	4-28-92	Aono et al.			
P	19 5235434	8-10-93	Wober			
P	20 5335016	8-02-94	Nakagawa			

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FOREIGN PATENT DOCUMENTS

	DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUBCLASS	TRANSLATION	
						YES	NO
P	21 WO 9108902	3-21-91	PCT				
P	22 0611051A1	8-17-94	EPO				
P	23 2211691A	5-07-89	UK				
P	24 059303A2	4-20-94	EPO				
P	25 0510933A1	10-28-92	EPO				

OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)

P	26	Amir Said et al., "Image Compression Using the Spatial-Orientation Tree", IEEE, 1993 p.279-282

EXAMINER <i>p. Mace Tran</i>	DATE CONSIDERED <i>8/2/04</i>
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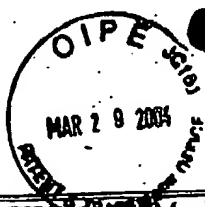


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Form PTO-1449 (Modified)				Atty Docket No.: 74451.P024XD		Serial No.: 09/499,255		
List of Patents and Publications Statement (Use several sheets if necessary)				Applicants: ZANDI ET AL.				
				Filing Date: 2/7/00				
REFERENCE DESIGNATION				U.S. PATENT DOCUMENTS				
Exam. Initial		Date	Document Number	Name	Class	Sub-Class	Filing Date	
	27	12/10/91	5,072,308	LIN ET AL.				
	28	3/17/92	5,097,331	CHEN ET AL.				
	29	3/31/92	5,101,280	MORONAGA ET AL.				
	30	7/7/92	5,128,791	LEGAL ET AL.				
	31	1/26/93	5,182,645	BREEUWER ET AL.				
	32	5/24/94	5,315,670	SHAPIRO				
	33	6/14/94	5,321,776	SHAPIRO				
	34	5/2/95	5,412,741	SHAPIRO				
	35	5/15/79	4,155,097	LUX				
	36	2/26/80	4,190,861	LUX				
	37	11/16/93	5,262,958	CHUI ET AL.				
	38	2/27/96	5,495,292	ZHANG ET AL.				
FOREIGN PATENT DOCUMENTS								
No.		Document No.	Date	Country	Name	Class	Sub-Class	Translation
OTHER ART (Including Author, Title, Date, Pertinent Pages, etc.)								
Examiner <i>p. moctran</i>				Date Considered 8/2/04				
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Form PTO-449 (Modified)				Atty Docket No.: 74451.P024XD		Serial No.: 09/499,255		
List of Patents and Publications Statement (Use several sheets if necessary)				Applicants: ZANDI ET AL.				
				Filing Date: 2/7/00				
REFERENCE DESIGNATION				U.S. PATENT DOCUMENTS				
Exam. Initial		Date	Document Number	Name	Class	Sub- Class	Filing Date	
PT	39	3/24/87	4,652,881	LEWIS				
	40	6/16/87	4,674,125	CARLSON ET AL.				
	41	11/15/88	4,785,348	FONSALAS ET AL.				
	42	1/17/89	4,799,179	MASSON ET AL.				
	43	3/21/89	4,815,023	ARBEITER				
	44	6/13/89	4,839,889	GOCKLER				
	45	9/19/89	4,868,868	YAZU ET AL.				
	46	4/17/90	4,918,524	ANSARI ET AL.				
	47	9/17/91	5,049,992	CITTA ET AL.				
	48	9/17/91	5,049,993	LEGALL ET AL.				
FOREIGN PATENT DOCUMENTS								
No.		Document No.	Date	Country	Name	Class	Sub-Class	Trans- lation
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Examiner <i>Shu Tran</i>				Date Considered 8/2/04				
EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.								



Form PTO-214 (Modified)				Atty Docket No.: 74451.P024XD		Serial No.: 09/499,255		
List of Patents and Publications Statement (Use several sheets if necessary)				Applicants: ZANDI ET AL.				
				Filing Date: 2/7/00				
REFERENCE DESIGNATION				U.S. PATENT DOCUMENTS				
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	49	5/9/89	4,829,378	LEGALL				
	50	6/6/89	4,837,517	BARBER				
	51	9/5/89	4,864,398	AVIS ET AL.				
	52	1/30/90	4,897,717	HAMILTON ET AL.				
	53	2/27/90	4,904,073	LAWTON ET AL.				
	54	5/29/90	4,929,223	WALSH				
	55	6/26/90	4,936,665	WHITNEY				
	56	11/27/90	4,974,187	LAWTON				
	57	1/1/91	4,982,283	ACAMPORA				
	58	7/12/83	4,393,456	MARSHALL, JR.				
	59	2/4/86	4,569,075	NUSSBAUMER				
FOREIGN PATENT DOCUMENTS								
No.		Document No.	Date	Country	Name	Class	Sub-Class	Trans- lation
OTHER ART (Including Author, Title, Date, Pertinent Pages, etc.)								
	60	"Proceedings: ICASSP 87", 1987 International Conference on Acoustics, Speech, and Signal Processing, April 6, 7, 8, 9, 1987, Volume 4 of 4, "Application of Quadrature Mirror Filtering to the Coding of Monochrome and Color Images", H. Gharavi and A. Tabatabai, p. 2384-2387.						
	61	International Search Report for Application No: GB 9518298.6, dated 8 November 1995.						
Examiner <i>p. h. Tran</i>				Date Considered 8/2/04				
EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.								



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Form PTO-249 (Modified)				Atty Docket No.: 74451.P024XD		Serial No.: 09/499,255		
List of Patents and Publications Statement (Use several sheets if necessary)				Applicants: ZANDI ET AL.				
				Filing Date: 2/7/00				
REFERENCE DESIGNATION				U.S. PATENT DOCUMENTS				
Exam. Initial		Date	Document Number	Name	Class	Sub- Class	Filing Date	
<i>PT</i>	62	1/30/79	4,136,954	JAMIESON				
<i>PT</i>	63	9/16/80	4,223,354	NOBLE ET AL.				
	64	7/8/86	4,599,567	GOUPILLAUD ET AL.				
	65	5/5/87	4,663,660	FEDELE ET AL.				
	66	10/20/87	4,701,006	PERLMUTTER				
	67	7/26/88	4,760,563	BEYLKIN				
	68	11/15/88	4,785,349	KEITH ET AL.				
	69	2/14/89	4,805,129	DAVID				
	70	3/28/89	4,817,182	ADELSON ET AL.				
	71	4/11/89	4,821,223	DAVID				
	72	5/2/89	4,827,336	ACAMPORA ET AL.				
FOREIGN PATENT DOCUMENTS								
No.		Document No.	Date	Country	Name	Class	Sub-Class	Trans- lation
OTHER ART (Including Author, Title, Date, Pertinent Pages, etc.)								
<i>PT</i>	73	Mark J. T. Smith and Thomas P. Barnwell, III, "Exact Reconstruction Techniques for Tree-Structured Subband Coders", IEEE Transactions on Acoustics, Speech, and Signal Processing, Vol. ASSP-34, No. 3, June 1986, p. 434-441.						
<i>PT</i>	74	Marvin Vetterli, "Multi-Dimensional Sub-Band Coding: Some Theory and Algorithms", Signal Processing 6 (1984) p. 97-112.						
<i>PT</i>	75	H. Gharavi and Ali Tabatabai, "Sub-band Coding of Digital Images Using Two-Dimensional Quadrature Mirror Filtering", SPIE Vol. 707 Visual Communications and Image Processing (1986), p. 51-61.						
Examiner <i>P. Huoc Tran</i>				Date Considered 8/2/04				
EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.								



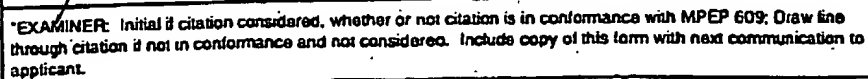
Form PTO-1449 (Modified)		Atty Docket No.: 74451.P024XD		Serial No.: 09/499,255			
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REFERENCE DESIGNATION		U.S. PATENT DOCUMENTS					
Exam. Initial	Date	Document Number	Name	Class	Sub-Class	Filing Date	
pt	76	4/7/92	5,103,306	WEIMAN ET AL.			
	77	6/9/92	5,121,191	CASSEREAU ET AL.			
	78	6/23/92	5,124,930	NICOLAS ET AL.			
	79	7/7/92	5,128,757	CITTA ET AL.			
	80	9/15/92	5,148,498	RESNIKOFF ET AL.			
	81	10/6/92	5,152,953	ACKERMANN			
	82	10/20/92	5,156,943	WHITNEY			
	83	12/22/92	5,173,880	DUREN ET AL.			
	84	5/30/95	5,420,891	AKANSU			
	85	5/25/71	3,580,655	LEITH ET AL.			
	86	4/13/76	3,950,103	SCHMIDT-WEINMAR			
FOREIGN PATENT DOCUMENTS							
No.	Document No.	Date	Country	Name	Class	Sub-Class	Translation
87	WO 96/09718	3/28/96	PCT				
88	WO 95/19683	7/20/95	PCT				
89	EP 0701375 A2	3/13/96	EUROPE				
OTHER ART (Including Author, Title, Date, Pertinent Pages, etc.)							
90	John W. Woods and Sean D. O'Neil, "Sub-Band Coding of Images", Proceedings ICASSP 86, Tokyo, Japan, April 1986, p. 1005-1008.						
91	John W. Woods, "Subband Coding of Images", IEEE Transactions on Acoustics, Speech, and Signal Processing, Vol. ASSP-34, No. 5, October 1986, p. 1278-1288.						
92	"Proceedings: ICASSP 87", 1987 International Conference on Acoustics, Speech, and Signal Processing, April 6, 7, 8, 9, 1987, Volume 3 of 4, "Sub-band Coding of Images Using Predictive Vector Quantization", P. H. Westerink, J. Biemond and D. E. Boekee, p. 1378-1381.						
Examiner <i>Phuoc Tran</i>		Date Considered 8/2/04					
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Form PTO-102 (Modified)				Atty Docket No.: 74451 . P024XD		Serial No.: 09/499,255		
List of Patents and Publications Statement (Use several sheets if necessary)				Applicants: ZANDI ET AL				
				Filing Date: 2/7/00				
REFERENCE DESIGNATION				U.S. PATENT DOCUMENTS				
Exam. Initial		Date	Document Number	Name	Class	Sub- Class	Filing Date	
PT	93	1/15/91	4,985,927	NORWOOD ET AL.				
	94	1/22/91	4,987,480	LIPPMAN ET AL.				
	95	3/19/91	5,000,183	BONNEFOUS				
	96	3/19/91	5,001,764	WOOD ET AL.				
	97	5/7/91	5,014,134	LAWTON ET AL.				
	98	5/21/91	5,018,210	MERRYMAN ET AL.				
	99	11/26/91	5,068,911	RESNIKOFF ET AL.				
	100	12/17/91	5,073,964	RESNIKOFF				
	101	1/14/92	5,081,645	RESNIKOFF ET AL.				
	102	3/10/92	5,095,447	MANNIS ET AL.				
	103	3/31/92	5,101,446	RESNIKOFF ET AL.				
FOREIGN PATENT DOCUMENTS								
No.		Document No.	Date	Country	Name	Class	Sub-Class	Trans- lation
PT	104	WO 94/23385	10/13/94	PCT				
PT	105	0 622 741 A2	3/30/94	Europe				
PT	106	GB 2 284 121 A	5/24/95	UK				
OTHER ART (Including Author, Title, Date, Pertinent Pages, etc.)								
PT	107	"1977 IEEE International Conference on Acoustics, Speech & Signal Processing", "Application of Quadrature Mirror Filters to Split Band Voice Coding Schemes", D. Esteban and C. Galand, p. 191-195.						
PT	108	Martin Vetterli, "Filter Banks Allowing Perfect Reconstruction", Signal Processing 10 (1986), p. 219-244.						
PT	109	R. E. Crochiere, S. A. Webber, J. L. Flanagan, "Digital Coding of Speech in Sub- bands", 1976, American Telephone and Telegraph Company, The Bell System Technical Journal, Vol. 55, No. 8, October 1976, p. 1069-1085.						
Examiner <i>phnortran</i>				Date Considered <i>8/2/04</i>				
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Sheet 11 of 23

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(REV. 8-83)

U.S. DEPARTMENT OF COMMERCE
PATENT AND TRADEMARK OFFICE

ATTN SOCKET NO.

74451.P024XD

SERIAL NO.

09/499,255

APPLICANT

Zandi, et al.

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INFORMATION DISCLOSURE CITATION

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U.S. PATENT DOCUMENTS

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FOREIGN PATENT DOCUMENTS

	DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUBCLASS	TRANSLATION	
						YES	NO
120	9417492	8/4/94	PCT	GO6K	9/36		
121	9310634	5/27/93	PCT	HO4N	7/13		

OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)

122	Shapiro, "Embedded Image Coding Using Zerotrees of Wavelet Coefficients", IEEE Transactions on Signal Processing, 12/93, No. 12, pp. 3445-3462.
123	Villaseñor, et al., "Filter Evaluation and Selection in Wavelet Image Compression", 1994, pp.351-360.
124	Padmanabhan, et al. "Feedback-Based Orthogonal Digital Filters", (IEEE Transactions on Circuits and Systems, 8/93, No. 8, pp.512-525.

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Form PTO-1449
(REV. 8-83)U.S. DEPARTMENT OF COMMERCE
PATENT AND TRADEMARK OFFICE

ATTY. DOCKET NO.

74451.P024XD

SERIAL NO.

09/499,255

INFORMATION DISCLOSURE CITATION

(Use several sheets if necessary)

APPLICANT

Zandi, et al.

FILING DATE

2/7/00

GROUP

2621

U.S. PATENT DOCUMENTS

EXAMINER INITIAL	DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING DATE (IF APPROPRIATE)
1	125 5 3 4 7 4 7 9	9/13/94	Miyazaki			
	126 5 4 1 2 7 4 1	5/2/95	Shapiro			
	127 5 4 5 3 9 4 5	9/26/95	Tucker, et al.			
	128 5 4 9 7 4 3 5	3/5/96	Berger			
	129 5 5 3 4 9 2 5	7/9/96	Zhong			
	130 5 5 3 7 4 9 3	7/16/96	Wildinson			
	131 5 5 4 6 4 7 7	8/13/96	Knowles, et al.			
	132 5 5 6 3 6 9 0	10/8/96	Shapiro			
	133 5 6 0 2 5 8 9	2/11/97	Vishwanath, et al.			

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FOREIGN PATENT DOCUMENTS

DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUBCLASS	TRANSLATION YES NO

OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)

EXAMINER

phuong Tran

DATE CONSIDERED

8/2/04

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Form PTO-1449
(REV. 8-83)

Sheet 18 of 23

U.S. DEPARTMENT OF COMMERCE
PATENT AND TRADEMARK OFFICE

ATTY. DOCKET NO.

SERIAL NO.

74451.P024XD

09/499,255

APPLICANT

Ahmad Zandi, et al.

FILING DATE

2/7/00

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INFORMATION DISCLOSURE CITATION

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U.S. PATENT DOCUMENTS

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FOREIGN PATENT DOCUMENTS

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OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)

OTHER DOCUMENTS	
138	Masumi Ohta, Mitsuharu Yano and Takao Nishitani: "Wavelet Picture Coding with Transform Coding Approach"; 1/31/89; Pages 776-785
139	Jia Chen, Shuschi Itoh and Takeshi Hashimoto: "Wavelet Pyramid Image Coding with Predictable and Controllable Subjective Picture Quality"; 9/9/93; Pages 1458-1468
140	Jerome M. Shapiro: "Embedded Image Coding Using Zerotrees of Wavelet Coefficients"; 12/12/93; Pages 3445-3462

EXAMINER

NER Phuoc Tran

DATE CONSIDERED

8/2/04

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Notice of References Cited

Application No.
09/499,255

Applicant(s)
Zandi et al.

Examiner
Phuoc Tran

Group Art Unit
2621

Page 19 of 23

U.S. PATENT DOCUMENTS

DOCUMENT NO.	DATE	NAME	CLASS	SUBCLASS
141 5,867,802	2/99	Zandi et al.	382	248
B.				
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FOREIGN PATENT DOCUMENTS

DOCUMENT NO.	DATE	COUNTRY	NAME	CLASS	SUBCLASS
142 EP-0662741 A2	11/94	EP	Knowles		
O.					
P.					
Q.					
R.					
S.					
T.					

NON-PATENT DOCUMENTS

DOCUMENT (Including Author, Title, Source, and Pertinent Pages)	DATE
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FORM PTO-892		DEPARTMENT OF COMMERCE PATENT AND TRADEMARK OFFICE		SERIAL NO. 09//499,255	GROUP ART UNIT 2612	ATTACHMENT TO PAPER NO.
NOTICE OF REFERENCES CITED				APPLICANT(S) Zandi et al.		
U.S. PATENT DOCUMENTS						
*		DOCUMENT NO.	DATE	NAME	CLASS	FILING DATE
	A	4,858,017	8/1989	Torbey	358	426
	B	5,384,869	1/1995	Wilkinson et al.	382	240 10/1992
	C	5,412,741	5/1995	Shapiro	382	232 1/1993
	D	5,481,308	1/1996	Hartung et al.	348	398 2/1992
	E	5,495,292	2/1996	Zhang et al.	348	407 3/1993
	F	5,541,594	6/1996	Huang et al.	348	414 3/1994
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*		DOCUMENT NO.	DATE	COUNTRY	NAME	CLASS SUB-CLASS
	L					
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	P					
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OTHER REFERENCES (Including Author, Title, Date, Pertinent Pages, Etc.)						
	R	Langdon, Jr., Sunset: a hardware oriented algorithm for lossless compression of gray scale images, 1991, pgs. 272-282.				
	S	Shapiro, Embedded Image Coding Using Zerotrees of Wavelet Coefficients, 12/1993, pgs. 3445-3462.				
	T	Reusens et al., New Results in subband/wavelet image coding, 5/1993, pgs. 381-385.				
	U					
EXAMINER Phyllis Trow Timothy M. Johnson		DATE 8/2/04 August 1, 1998		Form 892ccs2106b		
* A copy of this reference is not being furnished with this office action. (See Manual of Patent Examining Procedure, section 707.05(a).)						



FORM PTO-892

U.S. DEPARTMENT OF COMMERCE
PATENT AND TRADEMARK OFFICE

SERIAL NO.

09/499,255

GROUP ART
UNIT
2612ATTACHMENT
TO PAPER NO.

NOTICE OF REFERENCES CITED

APPLICANT(S)

Zandi et al.

U.S. PATENT DOCUMENTS

	DOCUMENT NO.	DATE	NAME	CLASS	SUB-CLASS	FILING DATE
A	5,495,292	2/1996	Zhang et al.	348	407.1	9/1993
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FOREIGN PATENT DOCUMENTS

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EXAMINER

Timothy M. Johnson

DATE

8/2/04
October 15, 2000

Form 892ccs2106b

* A copy of this reference is not being furnished with this office action.
(See Manual of Patent Examining Procedure, section 707.05(a).)



FORM PTO-892		U.S. DEPARTMENT OF COMMERCE PATENT AND TRADEMARK OFFICE		SERIAL NO. 09/499,258	GROUP ART UNIT 2612	ATTACHMENT TO PAPER NO.	
NOTICE OF REFERENCES CITED				APPLICANT(S) Zandi et al.			
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OTHER REFERENCES (Including Author, Title, Date, Pertinent Pages, Etc.)							
PT	R	Pollara et al., Rate-distortion efficiency of subband coding with integer coefficient filters, 7/1994, pp. 419, Information Theory, 1994, IEEE.					
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EXAMINER		DATE					
Phuoc Tran Timothy M. Johnson		8/2/04 May 31, 2001					
Form 892ccs2106b							
* A copy of this reference is not being furnished with this office action. (See Manual of Patent Examining Procedure, section 707.05(a).)							

Substitute for Form 1449/PTO (Modified)

INFORMATION DISCLOSURE
STATEMENT BY APPLICANT

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Complete if Known

Application Number	09/499,255
Filing Date	2/7/00
First Named Inventor	Ahmad Zandi et al
Group Art Unit	2612
Examiner Name	John W. Johnson
Attorney Docket Number	74451.P024XD

Sheet 1 of

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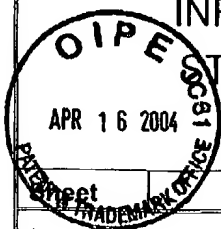
¹Unique citation designation number. ²See attached Kinds of U.S. Patent Documents. ³Enter Office that issued the document, by the two-letter code (WIPO Standard S.3). ⁴For Japanese patent documents, the indication of the year of reign of the Emperor must precede the serial number of the patent document. ⁵Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST.16 if possible. ⁶Applicant is to place a check mark here if English language Translation is attached.

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**Complete if Known**

Application Number	09/499,255
Filing Date	02/07/2000
First Named Inventor:	Ahmad Zandi
Art Unit	2621
Examiner Name	Phuoc Tran
Attorney Docket Number	074451.P024XD

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U.S. PATENT DOCUMENTS

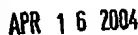
Examiner Initials*	Cite No. ¹	Document Number		Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		Number-Kind Code ² (If known)				
PA		US-	4,437,087	3/13/1984	Petr	
		US-	4,751,742	6/14/1988	Meeker	
		US-	4,881,075	11/14/1989	Weng	
		US-	4,899,147	2/6/1990	Schiavo et al.	
		US-	4,929,946	5/29/1990	O'Brien et al.	
		US-	4,973,961	11/27/1990	Chamzas et al.	
		US-	5,097,261	3/17/1992	Langdon, Jr. et al.	
		US-	5,223,926	6/29/1993	Stone, et al.	
		US-	5,276,525	1/4/1994	Gharavi	
		US-	5,349,348	9/20/1994	Anderson et al.	
		US-	5,379,355	1/3/1995	Allen	
		US-	5,414,780	5/9/1995	Carnahan	
		US-	5,416,604	5/16/1995	Park	
		US-	5,455,874	10/3/1995	Ormsby et al.	
		US-	5,511,151	4/23/1996	Russell et al.	
		US-	5,442,458	8/15/1995	Rabbani et al.	
		US-	5,566,089	10/15/1996	Hoogenboom	
		US-	5,638,498	6/10/1997	Tyler et al.	
		US-	5,701,367	12/23/1997	Koshi et al.	
		US-	5,717,789	2/10/1998	Anderson, et al.	
		US-	5,754,793	5/19/1998	Eom et al.	
		US-	5,808,683	9/15/1998	Tong et al.	
		US-	5,809,176	9/15/1998	Yajima	
		US-	5,850,482	12/15/1998	Meany et al.	
		US-	5,880,856	3/9/1999	Ferriere	
		US-	5,966,465	10/12/1999	Keith et al.	
		US-	6,020,975	2/1/2000	Chen et al.	
		US-	6,026,198	2/15/2000	Okada	
		US-	6,088,062	7/11/2000	Kanou et al.	
		US-	6,101,279	8/8/2000	Nguyen et al.	
		US-	6,118,902	9/12/2000	Knowles	
		US-	6,121,970	9/19/2000	Guedalia	
		US-	6,128,413	10/3/2000	Benamara	
		US-	6,201,897 B1	3/13/2001	Nixon	
		US-	6,229,929 B1	5/8/2001	Lynch et al.	
		US-	6,236,765 B1	5/22/2001	Archarya	
		US-	6,237,010 B1	5/22/2001	Hui et al.	
		US-	6,263,109 B1	7/17/2001	Ordentlich et al.	
		US-	6,263,120 B1	7/17/2001	Matsuoka	
		US-	6,327,392 B1	12/4/2001	Li	
		US-	6,330,666 B1	12/11/2001	Wise et al.	
		US-	6,339,658 B1	1/15/2002	Moccagatta et al.	
		US-	6,350,989 B1	2/26/2002	Lee et al.	
		US-	6,356,668 B1	3/12/2002	Honsinger et al.	

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INFORMATION DISCLOSURE STATEMENT BY APPLICANT

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Application Number	09/499,255
Filing Date	02/07/2000
First Named Inventor:	Ahmad Zandi
Art Unit	2621
Examiner Name	Phuoc Tran
Attorney Docket Number	074451.P024XD

Sheet

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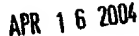
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Application Number	09/499,255
Filing Date	02/07/2000
First Named Inventor:	Ahmad Zandi
Art Unit	2621
Examiner Name	Phuoc Tran
Attorney Docket Number	074451.P024XD

Sheet	3	of	5
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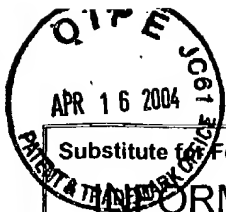
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Examiner Signature	<i>plmoctran</i>	Date Considered <i>8/2/04</i>	
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Application Number	09/499,255	RECEIVED APR 16 2004 Technology Center 2600
Filing Date	02/07/2000	
First Named Inventor:	Ahmad Zandi	
Art Unit	2621	
Examiner Name	Phuoc Tran	
Attorney Docket Number	074451.P024XD	

Sheet 4 of 5

NON PATENT LITERATURE DOCUMENTS

Examiner Initials*	Cite No ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published	T ²
pt		BLUMBERG, et al., "Visual Realism and Interactivity for the Internet", IEEE, 1997, pp. 269-273.	
		BOLIEK, et al., "Decoding compression with reversible embedded wavelets (CREW) codestreams", Journal of Electronic Imaging, July 1998, vol. 7 (3), pp. 402-409.	
		BOLIEK, et al., "JPEG 2000 for Efficient Imaging in a Client/Server Environment", Proceeding of the PIE, SPIE, Bellingham, VA, US, Vol. 4472, July 31, 2001, pp. 212-223, XP008010308.	
		BOLIEK, et al., "JPEG 2000 Next Generation Image Compression System", IEEE 0-7803-6297, 45-48	
		CALDERBANK, et al., "Wavelet Transforms That Map Integers to Integers", August 1996.	
		CAREY, et al: "Regularity-Preserving Image Interpolation", IEEE Transactions on Image Processing, Vol. 8, No. 9, September 1999, pgs. 1293-1297, XP002246254.	
		CARRATO, et al: "A Simple Edge-Sensitive Image Interpolation Filter", Proceedings of the International Conference on Image Processing (ICIP) Lausanne, Sept. 16-19, 1996, New York, IEEE, US, vol. 1, pgs. 711-714, XP010202493.	
		CHRYSAFIS, et al., "An Algorithm for Low Memory Wavelet Image Compression", IEEE 0-7803-5467-2/99, pg. 354-358.	
		CHRYSAFIS, et al., "Line Based Reduced Memory, Wavelet Image Compression," Data Compression Conference, 1998, DCC '98, Proceedings Snowbird, UT, March 1998, pgs. 398-407.	
		CHUI, et al., "Wavelets on a Bounded Interval", Numerical Methods of Approximation Theory, Vol. 9, 1992, pg. 53-75.	
		DESHPANDE, et al., "HTTP Streaming of JPEG2000 Images", IEEE, 2001, pp.15-19.	
		German Search Report, Dated March 21, 1997, 3 pages.	
		GORDON, BENJAMIN M., et al., "A 1.2 mW Video-Rate 2-D Color Subband Decoder," IEEE Journal of Solid-State Circuits, IEEE Inc. New York, Vol. 30, No. 12, Dec. 1, 1995, pgs. 1510-1516.	
		HAUF, et al., "The FlashPix™ Image File Format", The Fourth Color Imaging Conference: Color Science, Systems and Application, 1996, pp. 234-238.	
		Information Technology - JPEG 2000 Image Coding System - Part 1: Core Coding System, ISO/IEC 15444-1, 12/15/2000, pg. 5, 14, 22.	
		JPEG 2000 Part 1 Final Committee Draft Version 1.0, Image Compression Standard described in ISO/IEC 1/SC 29/WG 1 N1646, 16 March 2000.	
		MARCELLIN, et al., "An Overview of JPEG-2000", Proceedings. DCC 2000 Snowbird, UT, USA, March 28-30, 2000, pp. 523-541, XP010377392.	
		MENG, TERESA H., "A Wireless Portable Video-on-Demand System," VLSI Design, 1998, Proceedings Eleventh International Conference on Chennai, India 407, Jan. 1998, California, pgs. 4-9.	
		REEVES, et al: "Multiscale-Based Image Enhancement", Electrical and Computer Engineering, 1997. Engineering Innovation: Voyage of Discovery. IEEE 1997 Canadian Conference on St. Johns, NFLD., Canada May 25-28, 1997, New York, NY. (pgs. 500-503), XP010235053	
		STOFFEL, et al: "A Survey Of Electronic Techniques For Pictorial Image Reproduction," IEEE Transactions On Communications, vol. COM-29, no. 12, December 1981, pp. 1898-1925, XP000560531 IEEE, New York (US).	

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Application Number	09/499,255
Filing Date	02/07/2000
First Named Inventor:	Ahmad Zandi
Art Unit	2621
Examiner Name	Phuoc Tran
Attorney Docket Number	074451.P024XD

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Substitute for Form 1449/PTO		Complete if Known	
INFORMATION DISCLOSURE STATEMENT BY APPLICANT (use as many sheets as necessary)		Application Number	09/499,255
		Filing Date	02/07/2000
		First Named Inventor:	Ahmad Zandi
		Art Unit	2621
		Examiner Name	Tran, Phuoc
		Attorney Docket Number	74451.P024XD

U.S. PATENT DOCUMENTS						
Examiner Initials*	Cite No. ¹	Document Number		Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		Number-Kind Code ² (if known)				
PT		US-	2001/0003544 A1	06-14-2001	Kajiwara et al.	
		US-	5,303,200	04-12-1994	Elrod et al.	
		US-	5,600,373	02-04-1997	Chui et al.	
		US-	5,999,634	12-07-1999	Abbott et al.	
		US-	6,005,901	12-21-1999	Linz	
		US-	6,031,940	02-29-2000	Chui et al.	
		US-	6,088,395	07-11-2000	Wang et al.	
		US-	6,266,450 B1	07-24-2001	Yip et al.	
		US-	6,275,531 B1	08-14-2001	Li	
		US-	6,332,043 B1	12-18-2001	Ogata	
		US-	6,442,302 B2	08-27-2002	Klassen	
		US-	6,486,981 B1	11-26-2002	Shimura et al.	
		US-	6,492,916 B1	12-10-2002	Schwartz et al.	
		US-	6,549,673 B1	04-15-2003	Ammicht et al.	
		US-	6,606,416 B1	08-12-2003	Yip et al.	
		US-	6,658,159 B1	12-02-2003	Taubman	

FOREIGN PATENT DOCUMENTS							
Examiner Initials*	Cite No. ¹	Foreign Patent Document		Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	T ⁶
		Country Code ³	Number ⁴ Kind Code ⁵ (if known)				


Examiner Signature	<i>Phuoc Tran</i>	Date Considered	8/2/04
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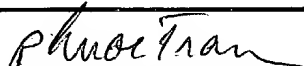
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Substitute for Form 1449/PTO <div style="text-align: center;"> INFORMATION DISCLOSURE STATEMENT BY APPLICANT <small>(Use as many sheets as necessary)</small> </div> <div style="text-align: center;">  </div>		<div style="text-align: right; font-weight: bold; font-size: small;">Complete if Known</div> <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 60%;">Application Number</td> <td>09/499,255</td> </tr> <tr> <td>Filing Date</td> <td>02/07/2000</td> </tr> <tr> <td>First Named Inventor:</td> <td>Ahmad Zandi</td> </tr> <tr> <td>Art Unit</td> <td>2621</td> </tr> <tr> <td>Examiner Name</td> <td>Tran, Phuoc</td> </tr> <tr> <td>Attorney Docket Number</td> <td>74451.P024XD</td> </tr> </table>		Application Number	09/499,255	Filing Date	02/07/2000	First Named Inventor:	Ahmad Zandi	Art Unit	2621	Examiner Name	Tran, Phuoc	Attorney Docket Number	74451.P024XD
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Attorney Docket Number	74451.P024XD														
Sheet 1 of 2															
NON PATENT LITERATURE DOCUMENTS															
Examiner Initials*	Cite No ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published	T ²												
pt		CHAE, ET AL., Blocking Artifact Reduction in JPEG-Coded Images, IEEE 0-7803-5467-2, pgs. 894-898, published 24-28 Oct. 1999, © 1999 IEEE.													
pt															
pt		International Standard, Information Technology - JPEG 2000 image coding system - Part 1: Core coding system, ISO/IEC 15444-1, First edition 2000-12-15, pgs. ii-226.													

Examiner Signature		Date Considered	8/2/04
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